

spotted with dusky black spots arranged more or less in longitudinal lines. Four interrupted blackish stripes run from the forehead back over the shoulders, two on each side of the central line of the back. Tail dusky brown with very indistinct markings, scarcely amounting to incipient rings; limbs and feet dusky brown, the forearms barred with black; underparts greyish white, with large dusky black spots, arranged in interrupted transverse lines; neck whitish, crossed by two heavy transverse black bars. Head chocolate fawn, rather lighter and more rufescent than the body; nose dusky brown with a narrow white stripe on each side, leading back between two black stripes; a narrow fainter white stripe above each eye and a small, pure white patch beneath each eye; sides of the head light fawn; cheeks white with two narrow dusky stripes; lips white; chin and throat pure white; inner aspect of the ears white, outer black; muzzle brick red.

It is interesting to note that there is no sign, on either of them, of any rusty spotting.

In spite of the greatest care and attention both died after a few days.

GALAPITAKANDE ESTATE,
NAMUNUKULA, CEYLON,
22nd February, 1950.

W. W. A. PHILLIPS

4. THE FISHING CAT (*PRIONAILURUS VIVERRINUS* BENNETT)

I see in 'The Book of Indian Animals' by Prater, that little is known of the breeding habits of this fine cat.

Yesterday while finishing off the harvesting of a thirty acre plot of sugarcane near my bungalow, I was attracted by the barking of my two Labradors, and on investigation found they had brought to bay on a small tree a fine male specimen, which I shot.

The weight and size were considerably more than those given by Prater, of 25 pounds and 2½ feet. My specimen weighed 32 pounds, and measured between pegs, 3 feet 3 inches, of which the tail was 11 inches.

Later the dogs hunted out a female which escaped, and a kitten of about two months which they killed.

I record the incident because the Fishing Cat is not common in these parts, and to date the birth of this kitten as January or early February.

KOOREA,
BETTIAH P.O.,
CHAMPARAN,
1st April, 1950.

A. ST. J. MACDONALD

5. FERAL ALBINO AND PIEBALD RATS

In a recent number of the *Journal* [48(3): 579, 1949] the Rodent Control Officer for Hongkong describes a piebald specimen of *Rattus norvegicus* Berkenhout, taken under feral conditions in a tenement in

the Colony of Hongkong. The author says that this is the first one that he had seen out of many thousands of rats that had passed through his hands. It would seem to be of some interest to know if anyone can give any indication of the frequency of occurrence of albinos and piebald specimens among the commensal rats in southern Asia.

The albino and pied rats at present kept in captivity are in all cases domesticated strains of the Norway Rat, and the two forms interbreed freely. It is not known whether the albino variety had a single or multiple origin, but it may safely be assumed that it is derived from one or more feral albino mutants which were captured and kept as pets. At the present time no feral colony of albinos is known. The present domestic stock of albinos is not strictly homozygous, but the character is certainly recessive in crosses between the albino and wild grey forms. The albino reappears in the proportion of one in four in the F_2 generation, and in this and later generations piebald animals may occur. Since the Hongkong specimen seems to have been unique, it is more likely to have been due to a mutation than to the partial emergence of a recessive strain.

References to albino rats in western Europe before the time when the Norway Rat is known to have reached that area show that albino mutants must also have occurred there in *Rattus rattus*; but according to Donaldson (*Memoirs Wistar Inst. Anat. Biol.*, 6: 6, 1924), a careful search by several investigators in the ten years prior to the appearance of his work failed to reveal a living albino specimen. Nor seemingly are there any examples in the leading American museums. On the other hand, Dr. Hossack (*Memoirs Ind. Mus.*, 1: 17-18, 1907) refers to several semi-albino specimens of *Rattus rattus* collected in Calcutta while he was working in the Plague Department of the city.

Rats trapped by the municipal authorities in Singapore are not normally sent to the Raffles museum, and specimens only reach us casually. Nevertheless I have been shown one full albino of *Rattus norvegicus* in the last two years. In addition the Museum reference collection contains a skin, without precise data, in which the pelage is appreciably paler than Ridgway's light buff (17'f), and a second, taken by a municipal collector on 24th October 1930, which is a uniform light ochraceous buff (Ridgway, 15'd). There seems to be no reason to doubt that the first and third of these examples, and probably the second also, were feral, though I do not see that one can ever be sure that one is not dealing with an escaped specimen in the slums of a large city.

In 1941 I was surveying the fauna of the Cocos-Keeling Islands, in the eastern Indian Ocean. There are about 25 islands round the atoll, the majority of which contain feral forms of *Rattus rattus*, originating presumably from specimens that came ashore from various visiting or wrecked ships in the last century. About 200 examples were taken, of which 65 were sent to Dr. G. H. H. Tate of the American Museum of Natural History, New York, who has reported on them (*Bull. Raff. Mus.*, 22, 1950). The rats on one of the islands are markedly different from the remainder and seem to constitute a hitherto unrecorded race of *Rattus rattus*. The others apparently represent a mixture of the white-bellied *frugivorous* Rafinesque and the dark-bellied *alexandrinus* G. St. Hilaire. One of the 180 examples taken of this latter complex, a small male, was a full albino, with pink eyes. It was caught on an uninhabit-

ed island, Pulo Panjang, which apart from it seemed to possess only dark-bellied forms. There can be no question of this specimen having come from a tame or captive stock. Darwin, who visited the atoll in 1836, does not report the presence of rats on this island, which is nearly 5 miles long, but the animals may be descended from the ship rats of the London brig *Sir Francis Nicholas Burton* which was wrecked there ten years earlier. Popularly the rats on this part of the atoll are thought to have come from the American vessel *Robert Portner* which went ashore on one of the other islets in 1878.

RAFFLES MUSEUM,
SINGAPORE,
20th February, 1950.

C. A. GIBSON-HILL

6. THE BURMESE WILD DOG

At page 651 of Vol. 48, No. 4, in his interesting 'Jungle Memories', Lt.-Col. Phythian-Adams asks, 'Is there a separate grey species of wild dog in Burma?' and mentions my statement in the article 'The Indian Wild Dog' (Vol. 41, p. 695) that 'no material is as yet available to establish the identity of the wild dogs of Burma.' That remark as to identity was in connexion with the scientific classification by Pocock of the several races of wild dog throughout India and Burma.

In the Fauna of British India—Mammalia, Vol. II, published on 15th September 1941 (after my article was written and published) Pocock, having seen some new material from Burma, gave the name *Cuon alpinus adustus*, subsp. nov., to the wild dog of Upper Burma, and the name *Cuon alpinus infuscus* Pocock to the race found in Tenasserim and Malaya. It would seem that yet more material is required from the whole of Burma and south to Malaya. The wild dog of Peninsular India is now named *Cuon alpinus dukhunensis* Sykes.

In 'A Game Book for Burma and Adjoining Territories' (1933) E. H. Peacock has a chapter on the Wild Dog (*Cuon* sp.) and says, 'There are said to be two species of wild dog in Burma: *C. dukhunensis* (the Indian wild dog) and *C. rutilans* (the Malay wild dog). I have never seen the former in Burma, but have seen and shot the latter on a number of occasions. The Malay wild dog resembles a large jackal more nearly than it does either dog or wolf. The general coloration is bright red with a black or dark brown tail and smoky-brown or black muzzle. It is smaller and more lightly built than the Indian wild dog and of a brighter red coloration.' He makes no mention of a grey dog, and remarks as to the jackal in Burma 'the colour of the coat varies from yellow or reddish-yellow to blue-grey.'

BANGALORE,
21st February, 1950.

R. W. BURTON,
Lieut.-Col. I.A. (Retd.)